Trends in Population-Based Incidence of *Campylobacter* and *Salmonella* among Infants in FoodNet, 1996-2003

Kathleen E. Fullerton^{1,2}, N. Ishill^{1,2}, D. J. Vugia³, N. Haubert⁴, S. Hurd⁵, S. Ray⁶, P. Ryan⁷, S. Wedel⁸, B. J. Anderson⁹, T. F. Jones¹⁰, K. Kretsinger¹, and the EIP FoodNet Working Group

¹CDC, Atlanta, GA, ²Atlanta Research and Education Foundation, ³CA Dept Health Svcs, Berkeley, CA, ⁴CO Dept Public Health Env, Denver, CO, ⁵CT EIP, New Haven, CT, ⁶GA EIP, Atlanta, GA, ⁷MD Dept Health Mental Hygeine, Baltimore, MD, ⁸MN Dept Health, Minneapolis, MN, ⁹NYS Dept Health, Albany, NY, ¹⁰TN Dept Health, Nashville, TN

Background:

Campylobacter and Salmonella are important foodborne bacterial pathogens with a disproportionately high burden in infants (children < 1 year old). We examined the changes in incidence of these infections from 1996 to 2003.

Methods:

Since 1996, the Foodborne Diseases Active Surveillance Network (FoodNet) has conducted active surveillance for laboratory-confirmed cases of infection of *Campylobacter* and *Salmonella*. To account for changes in the FoodNet catchment area from 1996 to 2003, a negative binomial model was used to estimate changes in the incidence of infection per 100,000 persons among the general population, and among infants (children <1 year of age) and among persons ≥ 1 year of age from 1996 to 2003.

Results:

In 2003, the incidence of *Campylobacter* infections was 12.7 among the general population, 26.9 among infants, and 12.5 among those \geq 1 year of age; a 27% decline (95% confidence interval (CI): 35% decline to 19% decline) among the general population, a 53% decline (95%CI: 66% decline to 35% decline) among infants, and a 2% increase (95% CI: 13% decline to 10% increase) among those \geq 1 year of age when compared to 1996 incidence. In 2003, the incidence of *Salmonella* infections was 14.5 among the general population, 130.2 among infants, and 12.9 among those \geq 1 year of age; a 17% decline (95% CI: 26% decline to 7% decline) among the general population, a 31% decline (95% CI: 47% decline to 11% decline) among infants, and a 10% increase (95% CI: 4% decline to 26% increase) among those \geq 1 year of age when compared to 1996 incidence.

Conclusions:

Among infants, the incidence of *Campylobacter* and *Salmonella* has declined substantially from 1996 to 2003. These declines far exceed any declines in incidence among those ≥ 1 year of age. Nonetheless, the burden of illness remains high in infants. Infants may benefit particularly from general improvements in food safety.